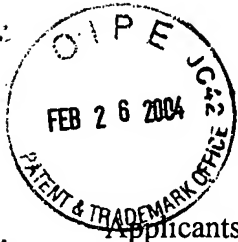


PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : David S. Wardrop et al.
 Application No. : 10/017,483
 Confirmation No. : 5180
 Filed : December 14, 2001
 For : FUEL CELL SYSTEM SHUNT REGULATOR METHOD AND APPARATUS

Examiner : Raymond Alejandro
 Art Unit : 1745
 Docket No. : 130109.431
 Date : February 26, 2004

Mail Stop AF
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

APPLICANTS' RECORD OF THE SUBSTANCE OF THE INTERVIEW

Commissioner for Patents:

This is a Response to the Interview Summary mailed January 26, 2004, in which a one (1) month period, due to expire February 26, 2004, has been set for the applicants to file a statement of the substance of the interview. Claims 1-7 and 9 were discussed during the interview conducted on January 20, 2004, between Examiner Raymond Alejandro and Applicants' attorney, Frank Abramonte.

Applicants' attorney agrees that discussion was directed to specific language "to selectively couple the first dump load when the fuel cell solid polymer electrochemical fuel cell exceeds a threshold voltage ...and to uncouple the first dump load when the stack terminal voltage across thereof is below the threshold voltage."

Applicants' attorney respectfully disagrees that Applicants admitted during the telephone interview that the prior art of record discloses the opposite *functionality* from Applicants' system. In this respect, during the telephone interview Applicants' attorney stated that the *operation* taught by Keller is opposite the *operation* taught by Applicants. Keller teaches coupling the pump into the circuit when the stack terminal voltage drops below the threshold voltage, and uncoupling the pump from the circuit when the stack terminal voltage

exceeds the threshold voltage. As explained in the interview, Applicants teach coupling the dump load into the circuit when the stack terminal voltage exceeds the threshold voltage, and uncoupling the dump load from the circuit when the stack voltage is below the threshold voltage.

With respect to functionality, Keller teaches selectively coupling and uncoupling a pump to a circuit, where the pump supplies fuel to a fuel cell stack, in order to regulate the output of the fuel cell stack. In contrast, Applicants teach coupling and uncoupling a dump load to a circuit to dissipate output already produced by the fuel cell stack. The functionality of Applicants' system is so distinctly different from the functionality of the Keller system that it cannot even be said to be opposite.

With respect to the Examiner's assertion that the prior art does not teach "such opposite functionality or behavior . . . cause detrimental damages [sic] to the fuel cell system as a whole," Applicants rely on the Response filed January 22, 2004, which notes that operation of the pump in the manner recited by the Applicants' claims would result in catastrophic runaway operation (*i.e.*, more and more fuel is supplied as the output of the fuel cell stack continues climbing).

Applicants' attorney also respectfully disagrees that Applicants contended that the term "dump load" strictly refers to a resistive element. In this respect, Applicants' attorney stated that the dump load includes a resistive element, however may additionally include other elements such as the capacitive or inductive elements noted in the specification.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



Frank Abramonte
Registration No. 38,066

Enclosure:
Postcard

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
(206) 622-4900
Fax: (206) 682-6031

(FXA:lrj) 453644_1



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**TRANSMITTAL
FORM**(To be used for all correspondence
after initial filing)

Application Number	10/017,483
Filing Date	December 14, 2001
First Named Inventor	David S. Wardrop
Art Unit	1745
Examiner Name	Raymond Alejandro
Attorney Docket No.	130109.431

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> CD(s), Number of CD(s) _____
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Request for Corrected Filing Receipt	<input type="checkbox"/> After Allowance Communication to Group
<input checked="" type="checkbox"/> Amendment/Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Declaration	<input checked="" type="checkbox"/> Return Receipt Postcard
<input type="checkbox"/> Information Disclosure Statement; Form PTO-1449	<input type="checkbox"/> Statement under 37 CFR 3.73(b)	<input type="checkbox"/> Additional Enclosure(s) (please identify below): _____ _____ _____
<input type="checkbox"/> Cited References	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts under 37 C.F.R. 1.52 or 1.53		
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Individual Name	Frank Abramonte	Customer Number 00500
Signature		
Date	February 26, 2004	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

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